CLAIMS

What is claimed is:

1. A system for supporting a network protocol, comprising:

a first memory, the first memory comprising program instructions for processing upper and lower layers of the network protocol;

a first processor, wherein the first processor processes the upper layers of the network protocol for a data packet according to the program instructions in the first memory; and

a second processor, wherein the second processor processes lower layers of the network protocol for the data packet according to the program instructions in the first memory.

2. The system of claim 1, wherein the first memory comprises:

an instruction memory comprising the program instructions; and

a data memory.

3. The system of claim 1, further comprising:

an analog-to-digital converter (ADC) coupled to the second processor; and

a digital-to-analog converter (DAC) coupled to the second processor.

4. The system of claim 1, further comprising:

a second memory, the second memory comprising sets of program instructions for processing upper and lower layers of a plurality of network protocols, wherein one of the

sets of program instructions is stored in the first memory when the network protocol is to be changed.

5. A system for supporting a network protocol, comprising:

a first memory, the first memory comprising program instructions for processing upper and lower layers of the network protocol;

a first processor, wherein the first processor processes the upper layers of the network protocol for a data packet according to the program instructions in the first memory;

a second processor, wherein the second processor processes lower layers of the network protocol for the data packet according to the program instructions in the first memory; and

a second memory, the second memory comprising sets of program instructions for processing upper and lower layers of a plurality of network protocols, wherein one of the sets of program instructions is stored in the first memory when the network protocol is to be changed.

6. A method for supporting a network protocol, comprising the steps of:

(a) receiving a data packet from a medium;

(b) unpacking lower layers of the network protocol for the data packet by a second processor according to program instructions in a memory; and

(c) unpacking upper layers of the network protocol for the data packet by a first processor according to the program instructions in the memory.

7. The method of claim 6, wherein the receiving step (a) comprises:

(a1) receiving the data packet from a medium by an ADC; and

(a2) converting the data packet into a digital signal.

8. The method of claim 6, wherein the unpacking step (b) comprises:

(b1) unpacking layers one and two of the network protocol for the data packet according to the program instructions in the memory, resulting in an interim data;

(b2) placing the interim data in a data memory; and

(b3) sending an interrupt from the second processor to the first processor.

9. The method of claim 6, wherein the unpacking step (c) comprises:

(c1) receiving an interrupt by the first processor;

(c2) fetching an interim data from a data memory by the first processor; and

(c3) unpacking layers three through seven of the network protocol for the interim data by the first processor according to the program instructions in the memory.

10. The method of claim 6, further comprising:

(d) determining if the network protocol is to be changed;

(e) fetching program instructions for a new network protocol if the network protocol is to be changed; and

(f) storing the program instructions for the new network protocol in the memory.

11. A method for supporting a network protocol, comprising the steps of:

(a) obtaining a data by a first processor;

(b) packing upper layers of the network protocol for the data by the first processor according to program instructions in a memory; and

(c) packing lower layers of the network protocol for the data by a second processor according to the program instructions in the memory.

12. The method of claim 11, wherein the packing step (b) comprises:

(b1) packing layers three through seven of the network protocol for the data by the first processor according to the program instructions in the memory, resulting in an interim data; and

(b2) storing the interim data in a data memory.

13. The method of claim 11, wherein the packing step (c) comprises:

(c1) fetching an interim data from a data memory by the second processor; and

(c2) packing layers one and two of the network protocol for the interim data by the second processor according to the program instructions in the memory.

14. The method of claim 11, further comprising:

(d) determining if the network protocol is to be changed;

(e) fetching program instructions for a new network protocol if the network protocol is to be changed; and

(f) storing the program instructions for the new network protocol in the memory.